REMARKS

This Amendment is fully responsive to the non-final Office Action dated August 3, 2009, issued in connection with the above-identified application. Claims 1-39 are pending in the present application. With this Amendment, claims 1, 3-10, 27, 29 and 34 have been amended; and claims 2, 11-26, 30-33 and 35-39 have been canceled without prejudice or disclaimer to the subject matter therein. No new matter has been introduced by the amendments made to the claims. Favorable reconsideration is respectfully requested.

To facilitate the Examiner's reconsideration of the present application, the Applicants have provided amendments to the specification, the abstract and Fig. 35. The changes to the specification and the abstract include minor editorial and clarifying changes. Replacement portions of the specification and a substitute abstract are enclosed. Additionally, a replacement sheet for Fig. 35 indicates that the drawing is directed to "Prior Art." No new matter has been introduced by the amendments made to the specification, the abstract and Fig. 35.

In the Office Action, claims 29-33 and 37-39 have been rejected under 35 U.S.C. 101 for being directed to non-statutory subject matter. In particular, the Examiner alleges that the claims are directed to a program that is not stored on any computer-readable storage medium or executed by any device/processor. In the Office Action, the Examiner suggests adding the limitation of claim 33 into claim 29, which recites "a computer readable storage medium on which a program according to claim 29 is recorded." The Applicants have amended claim 29 to include the limitation "[a] computer-readable recording medium on which a program is recorded," as suggested by the Examiner. Additionally, claims 30-33 and 37-39 have been canceled thereby rending the above rejection to those claims moot. Withdrawal of the rejection under 35 U.S.C. 101 is respectfully requested.

In the Office Action, claims 2, 3, 5, 8, 11-16, 23, 25 32 and 39 have been objected to for minor informalities. Specifically, the Examiner alleges that the claims are unclear because "a single terminal node cannot be both on the nth level as well as on the jth level." Additionally, the Examiner alleges that it is unclear what is meant by "not connected by lines." Claims 2, 11-26, 30-33 and 35-39 have been canceled thereby rending the above objection to any of those claims moot.

Additionally, the Applicants have amended the limitation "selecting a terminal node in the tree structure, the terminal node being (i) a node that belongs to the nth level, and (ii) a node

that belongs to the jth level, j is a natural number from 1 to n-1) and is not connected by lines with any nodes belonging to the j+ lth through the nth level" to read instead "selecting, as terminal nodes in the tree structure, nodes each of which does not have a child node, from among the nodes." Additionally, the limitation of "encrypted key group selection unit" in claim 8 has been amended to read instead "the encryption key group selection unit." Withdrawal of the objection to the claims is respectfully requested.

In the Office Action, claims 11-16, 32 and 39 have been rejected under 35 U.S.C. 102(b) as being anticipated by Nakano (International Application No. WO 02/078419, hereafter "Nakano"). The Applicants have canceled claims 11-16, 32 and 39 thereby rending the above rejection under 35 U.S.C. 102(b) moot.

In the Office Action, claims 1-10, 29, 33 and 34 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano in view of Lao (U.S. Patent No. 7,343,324, hereafter "Lao"). Claims 2 and 33 have been canceled thereby rendering the above rejection to those claims moot. Additionally, independent claims 1, 29 and 34 have been amended to more clearly distinguish the present invention from the cited prior art. Independent claim 1, as amended, recites the following features:

"[a] content distribution server that encrypts a content and distributes the encrypted content to content output apparatuses connected to the content distribution server via a network, each of the content output apparatuses decrypting the encrypted content and outputting the decrypted content, the content distribution server comprising:

a key information storage unit operable to hold a node encryption key group that is a set of node encryption keys which are previously assigned to the content output apparatuses using a predetermined key assignment method; ...

wherein the key assignment method has a tree structure in which a plurality of content output apparatuses serve as nodes, and includes;

classifying the nodes into a plurality of levels from a 0^{th} level through an nth level, n being 1 or a larger natural number; and

selecting, as terminal nodes in the tree structure, nodes each of which does not have a child node, from among the nodes, and

said encryption key group selection unit selects one terminal node from among the terminal nodes, and selects the selected node encryption key group so that said selected node

encryption key group includes a node encryption key that is set for the selected terminal node and a node encryption key that is set for a node other than the selected terminal node." (Emphasis added).

The features emphasized above in independent claim 1 are similarly recited in independent claims 29 and 34 (as amended). That is, independent claim 29 is a computer-readable recording medium and claim 34 is a method, and both claims include steps directed the features emphasized above in independent claim 1. Additionally, the features emphasized above in independent claim 1 (and similarly recited in independent claims 29 and 34) are fully supported by the Applicants' disclosure.

In the present invention (as recited in independent claims 1, 29 and 34), a key assignment method performed by a content distribution server has a tree structure in which a plurality of content output apparatuses serve as nodes, and that: selects at least one terminal node from among the terminal nodes; and selects the selected node encryption key group so that the selected node encryption key group includes a node encryption key that is set for the selected terminal node and a node encryption key that is set for a node other than the selected terminal node.

In the Office Action, the Examiner relies on Nakano for disclosing or suggesting all the features recited in independent claims 1, 29 and 34. However, the Applicants assert that Nakano fails to disclose or suggest the feature now recited in independent claims 1, 29 and 34, as amended.

Nakano discloses a technique for reducing the number of encryption key used for encryption through the use of tree structure when encrypting the content key for each encryption key, such that the terminal which has an unauthorized key cannot perform the decryption and the other terminals can perform the decryption.

More specifically, according to the technique disclosed in Nakano, a key is provided for each invalidation pattern indicating a combination of child nodes that are not invalid nodes (see e.g., Fig. 9). Subsequently, the encryption key group used for encrypting the content key is designated by sequentially designating, from the root node to the child node, the key that matches the invalidation pattern as an encryption key used for encrypting the content key (see e.g., Fig. 13). In other words, Nakano designates the encryption key group used for encrypting the content key while not designating the node key in the terminal node as much as possible.

On the other hand, in the present invention (as recited in independent claims 1, 29 and 34) the content distribution server selects at least one terminal node from among the terminal nodes, and selects the selected node encryption key group so that the selected node encryption key group includes a node encryption key that is set for the selected terminal node and a node encryption key that is set for a node other than the selected terminal node.

Accordingly, the present invention (as recited in independent claims 1, 29 and 34) is clearly different from Nakano in that (in the present invention) the node encryption key group is selected such that the encryption key group includes the node encryption key in the terminal node. Based on the above discussion, Nakano fails to anticipate or render obvious the features of independent claims 1, 29 and 34 (as amended). Likewise, Nakano fails to anticipate or render obvious the features of claims 3-10 at least by virtue of their dependencies (directly or indirectly) from independent claim 1.

In the Office Action, claims 17-26, 30, 31 and 35-38 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano in view of Asano (U.S. Application No. 2003/0051151, hereafter "Asano"); and claims 27 and 28 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano in view of Lao and Asano. The Applicants have canceled claims 17-26, 30, 31, 35-38 thereby rendering the above rejection to those claims moot.

With regard to independent claims 27, the claim has been amended to be consistent with the amendments made to independent claim 1. Therefore, independent claim 27 is distinguishable from Nakano in view of Lao for the same reasons noted above for independent claim 1. Additionally, Asano fails to overcome the deficiencies noted above in Nakano in view of Lao. Accordingly, no combination of Nakano, Lao and Asano would result in, or otherwise render obvious, independent claim 27. Likewise, no combination of Nakano, Lao and Asano would result in, or otherwise render obvious, claim 28 at least by virtue of its dependency from independent claim 27.

In light of the above, the Applicants respectfully submit that all the pending claims are patentable over the prior art of record. The Applicants respectfully request that the Examiner withdraw the rejections presented in the outstanding Office Action, and pass the present application to issue.

The Examiner is invited to contact the undersigned attorney by telephone to resolve any remaining issues.

Respectfully submitted,

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